

# THE HIDDEN COSTS OF OLD NETWORKING HARDWARE

You've heard of Moore's law, which states that computing power doubles every 18 months. The actual number is probably more like 20 months, but the upshot is that computing evolves at a breathtaking rate, which basically implies that any device you have is obsolete in about three years.

That means to stay up to date and maintain your efficiency, your network devices should be replaced approximately every three years. This includes switches, routers, servers—virtually everything with a “brain.” Infrastructure such as cabling and racks has a somewhat longer lifespan—especially if you used fiber with an eye to the future, but even that must be replaced eventually to keep up with changing network demands.

But when budgets are tight, it's tempting to delay upgrades. This can result in some short-term savings; however, down the road there are costs to not replacing out-of-date hardware. Those costs eventually often far outweigh short-term cash flow benefits and are likely to be higher than just upgrading your hardware in the first place.

Here are some reasons why you should retire those aging network devices:

## **Maintenance**

Network hardware starts to deteriorate after about three years, so older equipment is far more prone to breakdowns, and failed equipment can cost far more in manpower—not to mention downtime—to fix the problem than it would cost to replace the equipment in the first place. Planned upgrades are likely to be less expensive than unplanned equipment failure.

A properly configured network should be stable and require little or no unscheduled maintenance. When a network starts needing unscheduled service calls, it's probably time to look at the age of your equipment.

## **Energy consumption**



Gigabit Ethernet Managed Switch, 28-Port. 802.3az Energy-Efficient Ethernet saves on power costs.

Newer network equipment is more energy efficient than ever before. The new IEEE 802.3az standard for Energy Efficient Ethernet reduces power consumption by 50% or more by scaling down power consumption during periods of low data activity. Energy-efficient hardware also generates less heat, lowering cooling costs. Newer printers not only use less energy but have a lower per-page cost than older models.

Power is a large part of any IT department's budget, so using energy-efficient equipment can yield significant savings that often offset a large part of the cost of upgrading to newer equipment.

### **Decreased performance**

Moore's law states that processor speed doubles every 18 months. This exponential increase in processing power means that older equipment is significantly slower than today's equipment and may bog down when running newer software. Sluggish servers and workstations mean hours of lost productivity and frustration waiting for computers. Old machines running old software create inefficiency and are increasingly incompatible with the systems of other companies and with new technology such as smartphones.

### **Downtime**

This goes back to the maintenance issue. If you push your hardware until it stops working, downtime is inevitable. If your network crashes or goes down for maintenance, you lose work time. Then you not only have to pay for hardware to be replaced anyway, you experience devastating lost productivity and lost sales. And the worst part is that networks tend to crash and burn when they're being used the hardest—in other words, when you're busiest.

So although at first glance, it may seem to make sense to hang onto your systems a while longer, keeping equipment for much more than three years starts to pile up hidden costs that go up sharply with time and technological advancement.

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